

WHAT IS CLAIMED IS:

1. A process for the preparation of thermoset materials and objects according to the following stages:
 - 5 a- Preparation of a formulation (A) comprising, by weight, from 10 to 99% of at least one epoxide prepolymer and from 1 to 90% of at least one rheology-regulating agent (I),
 - b- Preparation of a formulation (B) comprising, by weight, from 1 to 90% of at least one hardener and from 10 to 99% of at least one rheology-regulating agent (I),
 - 10 c- Preparation of semifinished products by simultaneous treatment of the formulations (A) and (B) according to the nature of the materials and objects to be prepared, if need be observing the stoichiometry between the epoxide prepolymer and the hardener and, if appropriate, including the fibers, mats, woven fabrics or any other material commonly used in composite materials,
 - 15 d- Production of the desired structures with the semifinished product obtained in c according to standard techniques for processing semifinished products for thermoset composites, such as molding, including drape molding, or the production of sandwich systems,
 - 20 e- Reaction of the formulation in order to obtain a composite material according to the standard techniques for processing thermoset composite materials, such as heat forming,

A and B not necessarily comprising the same rheology-regulating agent.
- 25 2. The process as claimed in claim 1, characterized in that the rheology-regulating agent is at least one block copolymer chosen from S-B-M, B-M and M-B-M block copolymers in which:
 - each block is connected to the other by means of a covalent bond or of one or more intermediate molecules connected to one of the blocks via a covalent bond and to the other block via another covalent bond,
 - 30 ➤ M is a polymer miscible with the epoxide prepolymer, for example a methyl methacrylate homopolymer or a copolymer comprising at least

20% by weight of methyl methacrylate,

- B is incompatible with the epoxide prepolymer and with the M block,
 - S is incompatible with the thermosetting resin and with the B block.
3. The process as claimed in claim 2, characterized in that the M block is
5 chosen from poly(methyl methacrylate)s and copolymers comprising at least 20% by weight of methyl methacrylate.
 4. The process as claimed in claim 3, characterized in that the M blocks of the block copolymers are composed of syndiotactic PMMA to at least 75%.
 - 10 5. The process as claimed in one of claims 2 to 4, characterized in that the M blocks of the block copolymers additionally comprise reactive monomers, such as glycidyl methacrylate, tert-butyl methacrylate or acrylic acid.
 6. The process as claimed in one of claims 2 to 5, characterized in that the
15 Tg of the B blocks is less than 0°C and preferably less than -40°C.
 7. The process as claimed in claim 2, characterized in that the B block is chosen from poly(alkyl acrylate)s, such as poly(butyl acrylate), poly(ethylhexyl acrylate) or poly(octyl acrylate), and polydienes.
 8. The process as claimed in claim 7, characterized in that the B block is a
20 1,4-polybutadiene.
 9. The process as claimed in claim 7 or 8, characterized in that the dienes of the B block are hydrogenated.
 10. The process as claimed in claim 2, characterized in that the Tg or the M.p. of S is greater than 23°C and preferably greater than 50°C.
 - 25 11. The process as claimed in claim 10, characterized in that S is polystyrene.
 12. The process as claimed in one of claims 2 to 11, characterized in that the weight-average molar mass of the block copolymers can be between 10 000 g/mol and 500 000 g/mol.
 - 30 13. The process as claimed in claim 12, characterized in that the weight-average molar mass of the block copolymers can be between 20 000 g/mol and 200 000 g/mol.

14. The process as claimed in claim 1, characterized in that said simultaneous treatment is a coweaving.
15. A woven fabric and a knitted fabric prepared according to the process of claim 14.
- 5 16. The process as claimed in claim 1, characterized in that said simultaneous treatment is a coextrusion.
17. The process as claimed in claim 1, characterized in that said treatment is an impregnation by a mixture of powders.
- 10 18. A thermoset object and a thermoset material prepared according to the process of claim 16 or 17.